





ITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gary A. Freeman Art Unit: 3762
Serial No.: 10/712,308 Examiner: Unknown

Filed: November 13, 2003

Title : MULTI-PATH TRANSTHORACIC DEFIBRILLATION AND

CARDIOVERSION

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449. Applicant does not concede that the listed references are prior art. Because the above application was filed after June 30, 2003, applicant is not including copies of the U.S. Patent Documents. Applicant is submitting copies of the Foreign Patent Documents and Other References.

Submitted herewith is an English-language abstract of Reference AYYY (FR 2257312).

This statement is being filed within three months of the filing date of the application or before the receipt of a first Office action on the merits.

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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U.S. Department of Commerce Patent and Todemark Office PRADEM TRADEM

Attorney's Docket No. 04644-150001 Applicant

Application No. 10/712,308

by Applicant (Use several sheets if necessary)

(37 CFR §1.98(b))

Gary A. Freeman

Filing Date November 13, 2003 Group Art Unit 3762

			U.S. Pate	nt Documents			
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	6606516	08/12/03	Levine			
	AB	6549806	04/15/03	Kroll			
	AC	6516231	02/04/03	Flammang			
	AD	6484057	11/19/02	Ideker et al.			
	AE	6473645	10/29/02	Levine			
	AF	6411845	06/25/02	Mower			
	AG	6405084	06/11/02	Plicchi et al.			
	AH	6341234	01/22/02	Thong et al.			
,	AI	6337995	01/08/02	Mower			
	AJ	6253106	06/26/01	Legay et al.			
	AK	6178351	01/23/01	Mower		_	
	AL	6148234	11/14/00	Struble			
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	AN	6096063	08/01/00	Lopin et al.			
	AO	5928270	07/27/99	Ramsey III			
	AP	5916243	06/29/99	KenKnight et al.			
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	AZ	5431688	07/11/95	Freeman			
	AAA	5423873	06/13/95	Neubauer et al.			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if no	ot in conformance and not considered. Include copy of this form with

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Substitute Form PTO-1449 U.S. Department of Commerce (Modified) Patent and Trademark Office		Attorney's Docket No. Application No. 04644-150001 10/712,308		
	closure Statement	Applicant Gary A. Freeman		
(Use several sheets if necessary)		Filing Date November 13, 2003	Group Art Unit 3762	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ABB	5411525	05/02/95	Swanson et al.			
	ACC	5391187	02/21/95	Freeman			*
	ADD	5360435	11/01/94	DeGroot			
	AEE	5344430	09/06/94	Berg et al.			7.5
	AFF	5344429	09/06/94	Smits			
	AGG	5330506	07/19/94	Alferness et al.			
	АНН	5324309	06/28/94	Kallok			
	AII	5314459	05/24/94	Swanson et al.			
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	ATT	4830006	05/16/89	Hulaska et al.			
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·-	AVV	4821723	04/18/89	Baker, Jr. et al.			
	AWW	4800883	01/31/89	Winstrom			
	AXX	4768512	09/06/88	Imran			
	AYY	4727877	03/01/88	Kallok			
	AZZ	4708145	11/24/87	Tacker, Jr. et al.			
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	U.S. Patent Documents						
Examiner	Desig.	Document	Publication	Detector	01	0.41	Filing Date
Initial	ID	Number	Date	Patentee	Class	Subclass	If Appropriate
	ACCC	4595010	06/17/86	Radke			
	ADDD	4576170	03/18/86	Bradley et al.			
	AEEE	4548203	10/22/85	Tacker, Jr. et al.			
	AFFF	4467807	08/28/84	Bornzin			
	AGGG	4444195	04/24/84	Gold			
	АННН	4401121	08/30/83	Rodler			
	AIII	4372319	02/08/83	Ichinomiya et al.			
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	APPP	3942536	03/09/76	Mirowski et al.			
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	AWWW	2622601	12/23/52	Nemec			

	Foreign Patent Documents or Published Foreign Patent Applications							
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Trans Yes	lation No
·	AXXX	0602356 A3	12/27/95	Europe				
	AYYY	2257312	08/08/75	France				
	AZZZ							

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1	closure Statement oplicant	Applicant Gary A. Freeman		
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	Foreign Patent Documents or Published Foreign Patent Applications							
Examiner	Desig.	Document	Publication	Country or		-	Trans	slation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
	AAAAA							

	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner Initial	Desig. ID	Document
	ABBBB	Hua et al., "Effect of the Measurement Method on Noise Handling and Image Quality of EIT Imaging"; Proc. Annu. Int. Conf. IEEE Engineering in Medicine and Biology Society; 9:1429-1430; 1987
	ACCCC	Efimov, Am. J. Physiol. Heart Circ. Physiol.; 279:H1055-70; 2000
	ADDDD	Current waveforms ; Med. & Biol. Eng. & Comp.; vol. 23; pp. 122-130; 1985
	AEEEE	Geddes, L.A. et al., "The Prediction of the Impedance of the Thorax to Defibrillating Current"; Medical Instrumentation; vol. 10, no. 3; May-June 1976
	AFFFF	Jones, Douglas L. et al.; "Internal Cardiac Defibrillation in Man: Pronounced Improvement with Sequential Pulse Delivery to Two Different Lead Orientations"; Circulation; vol. 73, No. 3; pp. 484-491; March 1986
	AGGGG	Jones, Janice L. et al.; "Decreased Arrhythmias in Cultured Myocardial Cells Following High Intensity Electric Field Stimulation with Biphasic Rectangular Waveforms"; Federation Proceedings Abs.; vol. 42, n. 4; 1983
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	AKKKK	Jones, J.L. et al.; "Reduced Excitation Threshold in Potassium Depolarized Myocardial Cells with Symmetrical Biphasic Waveforms"; J. of Mol. & Cell. Cardiol.; vol. 17, no. 12; abst. no. 39; p. 27; 1985
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	AMMMM	Circulation; vol. 77, no. 5; May, 1988
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	A0000	Schuder, John C. et al.; "Defibrillation of l00kg Calves with Asymmetrical Bidirectional, Rectangular Pulses"; Cardiovascular Research; vol. 18; pp. 419-426; 1984
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Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Gary A. Freeman	
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	Other Do	ocuments (include Author, Title, Date, and Place of Publication)		
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Initial	ID	Document The state of the stat		
	AQQQQ	Jones et al.; "Defibrillator Waveshape Optimization"; Case Western University; Grant No. 5-R01-HL24606-03; Devices and Tech. Branch Contractors Meeting Program; p. 135; 1982		
	ARRRR	Schuder, John C. et al.; "Experimental Ventricular Defibrillation with an Automatic and Completely Implanted Systems"; Trans. Amer. SOC. Artif. Int. Organs; vol. 16; pp. 207-212; 1970		
	ASSSS	Schuder, John C. et al.; "Transthoracic Ventricular Defibrillation in the 100 kg Calf with Symmetrical One-Cycle Bidirectional Rectangular Wave Stimuli"; IEEE Trans. On Biomedical Eng.; vol. BME-30, no. 7; July 1983		
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	AUUUU	Schuder, J.C. et al.; "Ultrahigh-Energy Hydrogen Thyratron/SCR Bidirectional Waveform Defibrillator"; Medical & Biological Engineering & Computing; vol. 20; pp. 419-424; 1982		
	AVVVV	Tang, Anthony S.L. et al.; "Strength Duration Curve for Ventricular Defibrillation Using Biphasic Waveforms"; PACE, vol. 10; no. 2; p. 418; 1987		
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	AYYYY	Lown, B. et al.; "Sounding Boards The Energy for Ventricular Defibrillation – Too Little or Too Much?"; NEJMAG 298(22) 1213-1264 (1978)		
	AZZZZ	Tacker, W.A. et al.; "Energy Dosage for Human Transchest Electrical Ventricular Defibrillation"; NEJMAG 290(4) 175-234 (1974)		
	AAAAA	Warner, E.D. et al.; "Myocardial Injury From Transthoracic Defibrillator Countershock"; Arch. Pathol., vol. 99; pp. 55-59; 1975		
	ABBBBB	Jones, J.L. et al.; "Response of Cultured Myocardial Cells to Countershock-Type Electric Field Stimulation"; Am. J. Physiol., vol. 235; pp. H214-H222; 1978		
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	ADDDDD	Kerber, R.E. et al.; "Automated Impedance-Based Energy Adjustment for Defibrillation: Experimental Studies"; Circ., vol. 71; no. 1; pp. 136-140; 1985		
	AEEEEE	Bo, W.J. et al.; Basic Atlas of Cross-Sectional Anatomy; Table of Contents; Phil., PA., Saunders, 1980		
	AFFFFF	Fujimoto, L.K. et al., "Human Thoracic Anatomy Based on Computed Tomography for Development of a Totally Implantable Left Ventricular Assist System"; Artificial Organs 8(4):436-444 (1984)		
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	АНННН	Lee, M.M.C. et al.; "Postmortem Studies of Skinfold Caliper Measurement and Actual Thickness of Skin and Subcutaneous Tissue"; Human Biol., 37:91-103;1965		
	AIIIII	Oberman, A. et al.; "Heart Size of Adults in a Natural Population – Tecumseh, Michigan"; Circulation, 35:724-733,1967		
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Other Documents (include Author, Title, Date, and Place of Publication)		
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	AKKKKK	Geddes, L.A. et al.; "The Specific Resistance of Biological Material – A Compendium of Data for the Biomedical Engineer and Physiologist," Med. & Bio. Eng.; vol. 5; pp. 271-293, 1967

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